Person-Environment Fit: Project Leader-Stakeholder Relationships in a Complex Project Environment

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ABSTRACT

In this paper, we develop a conceptual model to explore the perceived complementary congruence between complex project leaders and the demands of the complex project environment to understand how leaders' affective and behavioural performance at work might be impacted by this fit. We propose that complex project leaders high in emotional intelligence and cognitive flexibility should report a higher level of fit between themselves and the complex project environment. This abilities-demands measure of fit should then relate to affective and behavioural performance outcomes, such that leaders who perceive a higher level of fit should establish and maintain more effective, higher quality project stakeholder relationships than leaders who perceive a lower level of fit.

Keywords: Complexity, interpersonal behaviour, work performance, managerial thinking and cognition.

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An estimated 75% of all executed projects in Australia and overseas fail to deliver on time, within budget, to the desired technology and/or performance standards, and with the acceptance of their stakeholders (Morris, 2008; The Standish Group, 2009). Most academics and practitioners agree that poor project management practices are most often the reason projects fail to achieve their objectives (Fortune & White, 2006). Yet the project management literature has largely overlooked the impact of the individual responsible for the management of a project on the outcomes of a project (Turner & Müller, 2005). Instead, project management is traditionally and commonly perceived as a set of normative procedures, applicable to most projects most of the time (Williams, 2005). Implied is that failure to adhere to these procedures will result in poorly managed projects regardless of the project leader's characteristics or behaviours. Furthermore, project leader competencies outside of knowledge and leadership competencies have been given little recognition (Brill, Bishop, & Walker, 2006; Crawford, 2005). Several studies have, however, identified a link between the characteristics of the project leader and the processes and outcomes of the projects they manage (Cheng, Dainty, & Moore, 2005; Geoghegan & Dulewicz, 2008; Metcalfe, Riedlinger, Pisarski, & Gardner, 2006; Müller & Turner, 2007; 2010; Turner & Müller, 2006).

In this paper, we seek to contribute to the project leader literature by exploring the impact of leader attributes on a critical project process. The purpose of this paper is, therefore, three-fold: (1) To understand how leaders potentially impact the process; (2) to consider an explanation for the impact; and (3) to explore some of the competencies leaders require to perform effectively. The critical project process involves the management of the stakeholders. We use management and psychology theory and literature to develop a conceptual model (see Figure 1) representing project leaders' impact on their relationships with the project stakeholders.

Three theories of psychology have been selected in particular to explain the associations depicted in our conceptual model: (1) Person-environment fit theory, (2) an individual differences theory of performance and (3) a contingency theory of performance. We propose that project leaders'

attributes (which underlie behavioural competencies) influence the establishment and maintenance of their relationships with the project stakeholders as well as the quality and effectiveness of these relationships. Project stakeholders fundamentally impact almost all aspects of a project, so improving the project leader-stakeholder relationship should contribute toward better project outcomes. Moreover, as the competencies required by the project leader have been shown to differ as a function of project type and the likelihood of project failure appears to increase as the size of the project increases (Belassi & Tukel, 1996; Flyvbjerg, Holm, & Buhl, 2004; Marrewijk, Clegg, Pitsis, & Veenswijk, 2008; Müller & Turner, 2010), our focus has been narrowed to large-scale, complex projects.

Person-Environment Fit

"We are not all alike; there are diversities of nature among us which are adapted to different occupations" (Plato 350 BCE as cited in Dumont 2010, p. 11).

Person-environment fit can be defined as the "congruence, match, similarity or correspondence" between an individual and an environment (Edwards, 2008, p. 4). The underlying principle of this psychology approach can be traced back to Plato in 350 BCE (Dumont, 2010). An assumption of person-environment fit theory is that high levels of fit produce positive outcomes, while lower levels of fit (or misfit) produce negative outcomes (Talbot & Billsberry, 2010).

Muchinsky and Monahan (1987) proposed two models to respond to the lack of definition surrounding the concept of fit in earlier studies: A *complementary* model of congruence that describes the 'match' between an individual's characteristics and those required by the environment for optimal performance; and a *supplementary* model of congruence that describes the similarity between an individual's characteristics and the characteristics of others in the environment. Where the two models differ most is in the conceptualisation of the environment. The complementary model defines the environment as distinct from the people within it (instead focusing on its 'demands and requirements'), while the supplementary model defines the environment in accordance with the people within it (Muchinsky & Monahan, 1987). Most complementary fit research has examined need-supplies fit or demand-abilities fit. In this respect, an abilities-demands type of fit has been related to

affective work outcomes (such as, job satisfaction and intentions to leave) and behavioural outcomes (for example, in-role performance and organisational citizenship behaviours; Vogel & Feldman, 2009).

The purpose of our paper is therefore to explore the *perceived* (fit as it is perceived and reported by the person; Kristof-Brown, Zimmerman, & Johnson, 2005) match or complementary congruence between complex project leaders' abilities and the demands of the complex project environment. The level of perceived fit will be explored to understand how complex project leaders' behavioural and affective performance at work might be impacted by this fit. Cable and De Rue (2002) have found perceived fit to be a better proximal determinant of attitudes and behaviours than actual or objective fit. The environment component of person-environment fit theory has taken many different forms, such as a team, job, vocation and organisation (Kristof-Brown, Zimmerman, & Johnson, 2005).

THE COMPLEX PROJECT ENVIRONMENT

We conceptualise the environment in terms of the location in which large-scale, complex projects are typically managed. Remington, Zolin and Turner (2009) attribute the degree of complexity associated with a large-scale, complex project to aspects of the project that characterise complexity (*dimensions*) and/or aspects of the project that exacerbate the complexity dimensions (*severity*). Remington and colleagues have been able to identify seven dimensions of a project that contribute to its complexity: (1) goals – their clarity, practicality or suitability; (2) stakeholders – their number, turnover, expectations, ability to convey information and sensitivities; (3) interfaces and interdependencies – their incompatibilities and number; (4) technology – its innovation and development; (5) management processes – ethics, relationships and concurrent processes, (6) work practices – time and cultural differences; and/or (7) timeframes – insufficient or inaccurate.

Aspects of a project that can increase the relative complexity of these dimensions also include more subjective experiences such as uncertainty, ambiguity, difficulty and novelty (Remington et al., 2009). Cheng, Dainty and Moore argue that "the unpredictability that this (complex project environment) creates, relative to static production industries, places extreme demands on managers to

respond flexibly to rapidly changing project circumstances" (2005, p. 25). According to Maynard and Hakel (1997) complexity can be objective (technology) or/and subjective (technology influenced by time, experience, motivation and context) although, both subjective and objective complexity have been found to predict performance. As such, how well the complex project leader is able to fulfil the various demands imposed by a work environment that is high in subjective and objective complexity might influence their performance at work. This proposition is supported by Cannon and St John (2007) who noted researchers agree complexity is one of the environment's most important characteristics. The critical project process we explore, therefore, concerns the management of the stakeholders or more specifically, the management of the project leader's relationship with the project stakeholders.

The Stakeholder Relationship

Project stakeholders and their management form one of the most critical processes within a project (Bourne & Walker, 2008). A project process has been defined by the PMBoK Guide (2008, p. 3) as a "set of interrelated actions and activities performed to achieve a pre-specified product, result of service". Project stakeholders are the "individuals or groups who have an interest or some aspect of rights or ownership in the project and can contribute to, or be impacted by, the outcomes of a project" (Bourne & Walker, 2008, p. 31). As such, the number of stakeholders involved with a large-scale, complex project can be considerable. Traditional models of stakeholder management position the organisation or company in the centre of the model, while stakeholders are predominantly outside this space, subordinate to, and in 'orbit' around the periphery of the organisation (Mainardes, Alves, & Raposo, 2011).

According to Lozano (2005), the relationships between the organisation and the stakeholders are essentially viewed as transactional, based on power and interests. Lozano contends further that this approach is unsuitable for the management of stakeholders, as stakeholders are not static but dynamic entities, existing in complex social systems of interdependencies and shared responsibilities with the organisation, each other and their own stakeholders. Rather than managing stakeholder relationships, Lozano suggests building interpersonal, dialogue-based stakeholder relationships that focus on the

values, rights and responsibilities of the group or individual. Similarly, Waddock (2001) proffers that building interpersonal, dialogue-based stakeholder relationships requires "commitment, energy, a willingness to admit mistakes, and capacity to change when problems arise, as well as attention to the softer, more subjective aspects of relationship building" (p. 243).

Karlsen (2002) points out that the project stakeholder relationship is considered the responsibility of the project leader. Consequently, meeting the stakeholders' expectations or satisfying the stakeholders is considered dependent on the experience and capability of the project leader (Karlsen, 2002; Zwikael, 2009). The benefits of an effective stakeholder relationship are extensive (Bourne & Walker, 2008; Jepsen & Eskerod, 2009; Pinto, Slevin, & English, 2009), while ineffective stakeholder management has been associated with: a decreased likelihood of project success; reduced stakeholder satisfaction with the project outcomes; a negative impact on the feasibility and viability of an organisation; hindrance to future opportunities for collaboration with the stakeholders; and the potential to cause harm to individuals or groups (Bourne & Walker, 2006; Foley & Zahner, 2009; Preble, 2005; 2008; Manowong & Ogunlana, 2010; Phillips, 2003; Sutterfield, Friday-Stroud, & Shivers-Blackwell, 2006).

It could also be argued that the stakeholder relationship is effective when the relationship achieves its objectives. According to the stakeholder literature (e.g., see Bourne & Walker, 2006; Jepsen & Eskerod, 2009; Manowong & Ogunlana ,2010), these objectives necessitate the project leader establishing and maintaining a relationship with the project stakeholders that allows the project leader to: elicit particular information from the stakeholder; facilitate the application of a formal stakeholder analysis; predict future stakeholder behaviour and reactions; actively address problems as they arise; facilitate the reciprocal flow of information; and to ensure the relationship endures throughout the lifecycle of the project and into the future.

Palmatier, Dant, Grewal and Evans (2006) define relationship quality as the "overall assessment of the strength of a relationship, conceptualised as a composite or multi-dimensional construct capturing the different but related facets of a relationship" (p. 138). The extent a project leader and/or the stakeholder perceive their relationship to be of high quality is indicative of their overall identification, trust, commitment and satisfaction with the relationship (Bhattacharya,

Korschun, & Sen, 2008). A stakeholder relationship may be considered effective by the project leader and/or the stakeholder and yet still be considered of poor quality. Poor quality stakeholder relationships are less likely to achieve their objectives, last long or be repeated in future (Bhattacharya et al., 2008). Moreover, the benefits of high quality relationships in the workplace also exceed those associated with the stakeholders themselves. For example, high quality interpersonal relationships at work have also been found to facilitate learning behaviours in organisations and to reduce the likelihood of burnout (Carmeli, Bruella, & Dutton, 2009; Fernet, Gagné, & Austin, 2010).

It is also apparent that developing and maintaining effective, high quality stakeholder relationships is not a straight forward process. This is because relationship difficulties are one of the most commonly cited causes of project management difficulties (Cicmil & Hodgson, 2006). Project stakeholders can be internal or external to a complex project leader's organisation. Internal project stakeholders might include team members, other project leaders and/or their superiors who are employed by their organisation, while external project stakeholders might refer to contractors, customers and/or suppliers that are employed outside of their organisation (Kerzner, 2009). The perceived location of the stakeholder as internal or external might impact the relationship between complex project leaders and their project stakeholders. The consequences of the complex project leader perceiving their project stakeholders as internal or external to their organisation (on their relationship with that stakeholder) appear to be unknown, however.

Although interest surrounding the relationship between the project leader and the project stakeholders is mounting, no previous research appears to have investigated the impact of project leaders' personal attributes on the establishment and maintenance of their relationships with the project stakeholders in a complex project environment (Bourne, 2005; Lozano, 2005). Therefore, how the complex project leader personally establishes and maintains these relationships is unknown, as are the competencies required by complex project leaders to establish and maintain this relationship so that it is effective and of high quality. Consequently, in this paper we seek to identify which personal attributes are required by a complex project leader to meet the demands of the complex project environment so that they may establish and maintain effective, high quality relationships with their project stakeholders.

This question is based on an individual differences perspective of performance whereby the source of variation between individuals is attributed to differences in personal characteristics such as personality, ability and motivation as opposed to situational factors or the performance process itself (Sonnentag & Frese, 2002). Two personal attributes are considered essential for the effective performance of complex project leaders within the complex project environment.

COMPLEX PROJECT LEADER ATTRIBUTES

The particular personal attributes we identify in this paper are emotional intelligence and cognitive flexibility. We select these particular attributes on the basis that they are essential for the effective performance of complex project leaders within the complex project environment. In particular, there appears to be 'fit' between these attributes (both separately and together), effective leadership behaviours and the demands imposed by the complex project environment. This section of the paper provides support for this proposed fit.

Emotional intelligence

Mayer and Salovey (1997) define the first attribute, emotional intelligence, as an individual's ability to perceive, appraise and express emotion, in themselves and others, so as to understand and regulate emotion, thereby facilitating thought and intellectual growth. This definition is one of the more widely accepted (Ashkanasy & Daus, 2005); it has undergone the most development and modification, and has been used in the construction of many measures of emotional intelligence (Spector & Johnson, 2006). Clark (2010) has recently found that the effectiveness of one project manager can be separated from the effectiveness of another project manager on the basis of their emotional intelligence. Project managers higher in emotional intelligence may perform more effectively as a result of better interpersonal work relationships.

A substantial body of research has demonstrated an association between emotional intelligence and enhanced interpersonal relationships with more emotionally intelligent individuals reportedly experiencing enhanced social competence, social exchange reasoning, relationship quality and romantic relationship quality (satisfaction, closeness and commitment; Brackett, Mayer & Warner, 2004; Lopes, Salovey, & Strauss, 2003; Reis, Brackett, Shamosh, Kent, Salovey, & Gray, 2007;

Schroder-Abe & Schutz, 2011). A number of outcomes associated with individuals high in emotional intelligence might also enhance performance in environments characterised by complexity, uncertainty and novelty. These include increased positive affect, enhanced job performance, improved physical and psychological wellbeing, more effective leadership capabilities and the adoption of adaptive coping styles (Jordan & Troth, 2002; Mayers, Roberts, & Barsade, 2008; O'Boyle Jr, Humphrey, Pollack, Hawver, & Story, 2011; Sunindijo, Hadikusumo, & Ogunlana, 2007). As such, our first propositions are:

Proposition 1. *Emotional intelligence will be associated with complex project leaders' ability to establish and maintain effective (P1a. internal and P1b. external) stakeholder relationships.*

Proposition 2. *Emotional intelligence will be associated with complex project leaders' ability to establish and maintain quality (P2a. internal and P2b. external) stakeholder relationships.*

Cognitive flexibility

The second attribute we address, cognitive flexibility, is defined by Dennis and Vander Wal (2010) as the ability to alternate between cognitive sets in response to changes in the external environment. Kamigaki, Fukushima, and Miyashita (2009) describe a cognitive set as a particular arrangement of mental resources that allow us to respond consistently to stimuli so that we can navigate the environment effectively and efficiently. Cognitive flexibility is most commonly measured experimentally by using tasks that require the respondent to quickly shift perception to successfully complete each task, and which reward consistency and flexibility (Berg, 1948; Grant & Berg, 1948; Stroop, 1935).

According to Anderson and Martin (1995), a cognitively flexible individual will be *aware* of available alternatives in a given situation, have the *willingness* to adapt to the situation by choosing the appropriate alternative way of responding and have the *self-efficacy* (or the belief) that they possess the ability to adapt to the situation. In contrast, an individual low in cognitive flexibility will only see what they perceive as the right or 'proper' way of responding (Anderson & Martin, 1995).

There is also evidence to suggest this attribute might enhance a project manager's ability to establish and maintain, high quality, effective stakeholder relationships. For instance, cognitive flexibility has been positively related to competence in communicating (Martin & Rubin, 1994), confidence to communicate in novel situations, assertiveness and responsiveness (Anderson & Martin, 1995), adaptability and open-mindedness (De Young, Peterson, & Higgins, 2005), tolerance of ambiguity (Sidanius, 1988) and a reduced inclination to make premature decisions and experience stress (Furnham & Ribchester, 1995). This research also suggests project managers with enhanced cognitive flexibility will be more comfortable and demonstrate a higher level of competence in a complex environment. Therefore, we next propose:

Proposition 3. *Cognitive flexibility will be associated with complex project leaders' ability to establish and maintain effective (P3a. internal and P3b. external) stakeholder relationships.*

Proposition 4. *Cognitive flexibility will be associated with complex project leaders' ability to establish and maintain quality (P4a. internal and P4b. external) stakeholder relationships*

We argue that each attribute can assist complex project leaders to meet the demands of the complex project environment and to establish and maintain effective, high quality relationships with their project stakeholders. The cognitive-affective interaction between the attributes might also assist leaders to perform over and above the effect of each attribute separately. Although the interaction has not been labelled, we propose that the interaction is similar to an individual difference in social information processing known as interpersonal cognitive complexity (Turner, 2008). The abilities found in individuals with high interpersonal cognitive complexity might arise from a combination of emotional intelligence and cognitive flexibility. High interpersonal cognitive complexity enables an individual to recognise and understand another person's cognitive, affective and motivational perspectives, reconcile and integrate inconsistent information about others and avoid relying on simplifying social schemes to understand relationships (Delia, 1972; Delia & Crockett, 1973; Press, Crockett & Delia, 1975; Turner, 2008). Thus, our next proposition is:

Proposition 5. *The interaction between emotional intelligence and cognitive flexibility will be associated with complex project leaders' ability to establish and maintain effective, high quality relationships with their (P1a. internal and P1b. external) project stakeholders, over and above the effects associated with each attribute separately.*

In our final two propositions, we seek to provide an explanation of the processes underlying the proposed relationships between the complex project leader and the various stakeholder relationships within the complex project environment. In particular, we suggest that leaders' high in emotional intelligence and cognitive flexibility may be more capable of establishing and maintaining, more effective, higher quality relationships with their stakeholders as a result of an enhanced 'fit' between their abilities, and the demands imposed by the task and the environment. This proposition is based on research by Anderson and Martin (1995), Clark (2010), Furnham and Ribchester (1995), O'Boyle et al. (2011), and Schroder-Abe and Schutz (2011), which suggests that emotional intelligence and cognitive flexibility, both separately and collectively, might equip the project manager with skills that may assist them to meet these particular demands. Thus, our final propositions are:

Proposition 6. *Complex project leaders high in emotional intelligence and cognitive flexibility will perceive a higher level of fit between their competencies and the complex project environment.*

Proposition 7. *Complex project leaders who perceive a higher level of fit between their competencies and the complex project environment will be better able to establish and maintain stakeholder relationships and have more effective, higher quality stakeholder relationships than complex project leaders who perceive a lower level of fit between their competencies and the complex project environment.*

Note in particular, that Proposition 7 adheres to a contingency theory of performance, whereby superior performance is achieved when an individual's capability matches the demands created by their environment (Boyatzis, 2009).

Model Overview

Figure 1 represents each of the first five propositions. Proposition 1 and Proposition 2 propose that emotional intelligence relates to complex project leaders' ability to establish and maintain effective (Proposition 1) stakeholder relationships and high quality (Proposition 2) stakeholder relationships. Proposition 3 and Proposition 4 posit cognitive flexibility will also relate to complex project leaders' ability to establish and maintain effective (Proposition 3) stakeholder relationships and high quality (Proposition 4) stakeholder relationships. Each proposition consists of two parts: Part A refers to internal stakeholders and Part B refers to external stakeholders. Proposition 5 has also been represented in Figure 1 as the relationship between complex project leaders with both attributes and each of the stakeholder relationships down the right-hand side column of the model. The interaction between emotional intelligence and cognitive flexibility is expected to associate with complex project leaders' ability to establish and maintain effective, high quality stakeholder relationships, over and above the effects of each of the attributes separately.

Insert Figure 1 about here

Figure 2 corresponds with Proposition 6 and Proposition 7. As can be seen in the figure, the perceived complementary congruence between complex project leaders and the complex project environment mediates the relationships between leaders' personal attributes (both separately and collectively) and their project stakeholder relationships.

Insert Figure 2 about here

DISCUSSION

Research into the role and impact of the project leader on a project at an individual level is limited. Little is known about the competencies required by the project leader to exercise effective leadership behaviours so as to improve project success factors. Less still is understood about the complex project leader's individual level effects within the context of large-scale, complex projects.

Yet the empirical evidence obtained from studying smaller scale, more traditional projects combined with the general management literature suggests that there is a direct relationship between a leader's behaviour and their performance at work (Turner & Müller, 2005). We propose that complex project leaders' personal attributes can predict their performance on a critical project process. More specifically, we posit that complex project leaders' emotional intelligence and cognitive flexibility can predict their ability to establish and maintain effective, high quality relationships with their internal and external project stakeholders within the complex project environment.

Implications for theory and practice

In the model set forth in this paper, we argue that a project leader is capable of influencing the processes and outcomes of a project at an individual level. A corollary of this is that future project management research in this area is worthwhile and necessary if we are to understand how to mitigate future risk of project failure and, therefore, to improve the likelihood of project success. The implications for person-environment fit theory are two-fold: (1) Understanding the processes that encourage fit by examining fit as a dependant variable, and (2) understanding how an individual's personal characteristics influence fit-outcome relationships. In this respect, we respond to the call made by Kristof-Brown et al. (2005) for research to address these issues. Further contributions are anticipated through the application of an abilities-demands type of fit to a novel problem in a unique context. Our research also has the potential to highlight the importance of interpersonal relationship quality at work, as well as to explicate additional causal mechanisms underlying interpersonal relationship quality.

Our theorising is based on the idea that a high level of perceived complementary congruence between complex project leaders and the complex project environment relates to the enhanced performance of the leader on a project process, and this process is critical to the outcomes of the project. If two personal attributes can predict this congruence, then the implications for the future management of large-scale, complex project are considerable.

Understanding the attributes required for complex project leaders to manage their stakeholders more effectively has implications for government and industry. For example, improved stakeholder

relationships would lead to better large-scale, complex project outcomes, resulting in time and monetary savings of years and billions of dollars. There are also implications for project management bodies of knowledge (PMBoK). In particular, by indicating how project leaders impact their relationships with the project stakeholders, some of the interpersonal and behavioural competencies required by project leaders become apparent. This is an area of project management that the PMBoKs have so far failed to address adequately in the past (Brill, Bishop, & Walker, 2006; Crawford, 2005).

Conclusions

In this paper, we used psychology and management theories and literature to develop a conceptual model depicting complex project leaders' potential impact on their stakeholder relationships within the context of the complex project environment. Specifically, person-environment fit theory, an individual differences theory of performance and a contingency theory of performance were used to develop the model. We propose that leaders' emotional intelligence and cognitive flexibility will separately and collectively predict how well they establish and maintain relationships with their project stakeholders, as well as predict the effectiveness and quality of those relationships. We also posit that leaders high in emotional intelligence and cognitive flexibility will report a higher perceived complementary congruence between themselves and the complex project environment. This abilities-demands measure of fit will relate to affective and behavioural performance outcomes such that leaders who perceive a higher level of fit will establish and maintain (behavioural outcomes) more effective, higher quality (affective outcomes) stakeholder relationships than leaders who perceive lower levels of fit. Rigorously testing person-environment fit theory on a new problem, in a novel context, will further inform understanding of the processes through which person-environment fit influences employee performance at work, as well as the individual effects of the complex project leader on a critical process in large-scale, complex project management.

REFERENCES

Anderson, C. M., & Martin, M. M. (1995). Communication motives of assertive and responsive communicators. *Communication Research Reports, 12,* 186-191.

Ashkanasy, N. M., & Daus, C. S. (2005). Rumors of the death of emotional intelligence in organizational behavior are vastly exaggerated. *Journal of Organizational Behavior, 26,* 441-452.

Belassi, W., & Tukel, O. I. (1996). A new framework for determining critical success/failure factors in projects. *International Journal of Project Management, 14,* 141-151.

Berg, E. A. (1948). A simple objective technique for measuring flexibility in thinking. *Journal of General Psychology, 39,* 15-22.

Bhattacharya, D. K., Korschun, D., & Sen, S. (2008). Strengthening stakeholder-company relationships through mutually beneficial corporate social responsibility initiatives. *Journal of Business Ethics, 85,* 257-272.

Bourne, L. (2005*). Project relationship management and the Stakeholder Circle*. Doctor of Project Management, Graduate School of Business, RMIT University. Bourne L and Walker DHT (2005) Visualizing and mapping stakeholder influence. *Management Decision, 43,* 649-660.

Bourne, L., & Walker, D. H. T. (2006). Visualizing stakeholder influence- two Australian examples. *Project Management Institute, 37,* 5-21.

Bourne, L., & Walker, D. H. T. (2008). Project relationship management and the Stakeholder Circle™. *International Journal of Managing Projects in Business, 1,* 125-130.

Boyatzis, R. E. (2009). Competencies as a behavioral approach to emotional intelligence. *Journal of Management Development, 28,* 749-770.

Brackett, M.A., Mayer, J.D., & Warner, R.M. (2004). Emotional intelligence and its relation to everyday behavior. *Journal of Personality and Individual Differences, 36,* 1387-1402.

Brill, J. M., Bishop, M. J., & Walker, A. E. (2006). The competencies and characteristics required of an effective project manager: A web-based Delphi study. *Educational Technology Research and Development, 54,* 115-140.

Cable, D.M., & DeRue, D.S. (2002) The congruent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology, 87,* 875–884.

Cannon, A. R., & St John, C. H. (2007). Measuring environmental complexity: A theoretical and empirical assessment. *Organizational Research Methods, 10,* 296-321.

Carmeli, A., Brueller, D., & Dutton, J. E. (2009). Learning behaviors in the workplace: The role of high-quality interpersonal relationships and psychological safety. *Systems Research and Behavioral Science, 26,* 81-98.

Cheng, M., Dainty, A., & Moore, D. (2005). What makes a good project leader? *Human Resource Management Journal, 15,* 25-37.

Cicmil, S., & Hodgson, D. (2006). New possibilities for project management theory: A critical engagement. *Project Management Journal, 37,* 111-22.

Clark, N. (2010). Projects are emotional: How project managers' emotional awareness can influence decisions and behaviors in projects. *International Journal of Managing Projects in Business, 3,* 604-624.

Crawford, L. (2005). Senior management perceptions of project management competence. *International Journal of Project Management, 23,* 7-16.

Delia, J. G. (1972). Dialects and the effects of stereotyping on interpersonal attraction and cognitive processes in impression formation. *Quarterly Journal of Speech, 58,* 285-297.

Delia, J. G., & Crockett, W. H. (1973). Social schemas, cognitive complexity, and the learning of social structures. *Journal of Personality, 41,* 413-429.

Dennis, J.P., & Vander Wal, J.S. (2010). The cognitive flexibility inventory: Instrument development and estimates of reliability and validity. *Cognitive Therapy Research, 34,* 241-253.

De Young, C. G., Peterson, J. B., & Higgins, D. M. (2005). Sources of openness/Intellect: Cognitive and neuropsychological correlates of the fifth factor of personality. *Journal of Personality, 73,* 826-858.

Dumont, F. (2010). *A history of personality psychology: Theory, science, and research from Hellenism to the Twenty-First Century.* New York, USA: Cambridge University Press.

Edwards, J. (2008). Chapter 4: Person-Environment Fit in Organizations: An Assessment of Theoretical Progress. *The Academy of Management annals, 2,* 167-230.

Fernet, C., Gagné M., & Austin, S. (2010). When does quality of relationships with coworkers predict burnout over time? The moderating role of work. *Journal of Organizational Behavior*, *31*, 1163-1180.

Flyvbjerg, B., Holm, M. K. S., & Buhl, S. L. (2004). What causes cost overruns in transport infrastructure projects? *Transport Reviews, 24,* 3-18.

Foley, K., & Zahner, T. (2009). *Creating and managing the sustainable organization: The stakeholder way.* Sydney, Australia: SAI Global Limited.

Fortune, J., & White, D. (2006). Framing of project critical success factors by a systems model. *International Journal of Project Management, 24,* 53-65.

Furnham, A., & Ribchester, T. (1995). Tolerance of ambiguity: A review of the concept, its measurement and applications. *Current Psychology, 14,* 179-200.

Geoghegan, L., & Dulewicz. (2008). Do project managers' leadership competencies contribute to project success? *Project Management Journal, 39,* 58-67.

Grant, D. A., & Berg, E. A. (1948). A behavioral analysis of degree of impairment and ease of shifting to new responses in a Weigl-type card sorting problem. *Journal of Experimental Psychology, 39,* 404–411.

Jepsen, A. L., & Eskerod, P. (2009). Stakeholder analysis in projects: Challenges in using current guidelines in the real world. *International Journal of Project Management, 27,* 335-343.

Kamigaki, T., Fukushima, T., & Miyashita, Y. (2009). Cognitive set reconfiguration signaled by macaque posterior parietal neurons. *Neuron, 61,* 941-951

Karlsen, J. T. (2002). Project stakeholder management. *Engineering Management Journal,* 14, 19-24.

Kerzner, H. (2009). *Project management: A systems approach to planning, scheduling and controlling* (10th edn). Chichester, UK: Wiley.

Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58,* 281-342.

Lopes, P.N., Salovey, P., & Strauss, R. (2003). Emotional intelligence, personality and the perceived quality of social relationships. *Personality and Individual Differences, 3,* 641-659.

Lozano, J. M. (2005). Towards the relational corporation: From managing stakeholder relations to building stakeholder relationships (waiting for Copernicus). *Corporate Governance, 5,* 60-77.

Mainardes, E. W., Alves, H., & Raposo, M. (2011). Stakeholder theory: Issues to resolve. *Management Decision, 49,* 226-252.

Manowong, E., & Ogunlana, S. (2010). Strategies and tactics for managing construction stakeholders. In E. Chinyoio (Ed.), *Construction stakeholder management* (pp. 121-137). Chichester, UK: Wiley.

Marrewijk, A., Clegg, S. R., Pitsis, T. S., & Veenswijk, M. (2008). Managing public-private megaprojects: Paradoxes, complexity, and project design. *International Journal of Project Management, 26,* 591-600.

Martin, M. M., & Rubin, R. R. (1994). A new measure of cognitive flexibility. *Psychological Reports, 76,* 623-626.

Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. *Annual Review of Psychology, 59,* 507-536.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence* (pp.3-31). New York: Basic Books.

Maynard, D. C., & Hakel, M. D. (1997). Effects of objective and subjective task complexity on performance. *Human Performance, 10,* 303-330.

Metcalfe, J., Riedlinger, M., Pisarski, A., & Gardner, J. (2006). *Collaborating across the sectors: the relationship between the humanities, arts and social sciences (HASS) and science, technology and medicine (STEM) sectors*. Council for the Humanities, Arts and Social Sciences, Canberra.

Morris, R. (2008). Stop the insanity of failing projects. *Industrial Management, 50,* 20-24.

Muchinsky, P. M., & Monahan, C. J. (1987). What is person-environment congruence? Supplementary versus complementary models of fit. *Journal of Vocational Behavior, 31,* 268-277.

Müller, R., & Turner, J. R. (2007). Matching the project manager's leadership style to project type. *International Journal of Project Management, 25,* 21-32.

Müller, R., & Turner, J. R. (2010). Leadership competency profiles of successful project managers. *International Journal of Project Management, 28,* 437-448.

O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2011). The relation between emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior*, 32, 788-818.

Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: A meta-analysis. *Journal of Marketing, 70*, 136-53.

Phillips, R. (2003). *Stakeholder theory and organisational ethics*. San Francisco, CA; Berret-Koehler.

Pinto, J. K., Selvin, D. P., & English, B. (2009). Trust in projects: An empirical assessment of owner/contractor relationships. *International Journal of Project Management, 27,* 68-648.

PMBoK Guide. (2008). *Project management body of knowledge* (4th ed.). Project Management Institute: PA.

Preble, J. F. (2005). Toward a comprehensive model of stakeholder management. *Business and Society Review, 110,* 407-431.

Press, A. N., Crockett, W. T., & Delia, J. G. (1975). Effects of cognitive complexity and perceiver's set upon the organization of impressions of others. *Journal of Personality and Social Psychology, 32,* 865-895.

Reis, D. L., Brackett, M. A., Shamosh, N. A., Kent, A. K., Salovey, P., & Gray, J. R. (2007). Emotional intelligence predicts individual differences in social exchange reasoning. *Neurolmage, 35,* 1385-91.

Remington, K., Zolin, R., & Turner, R. (2009, October). *A model of project complexity: Distinguishing dimensions of complexity from severity*. In: Proceedings of the 9th International Research Network of Project Management Conference, Berlin, Germany.

Schroder-Abe, M., & Schutz, A. (2011). Walking in each other's shoes: Perspective taking mediates effects of emotional intelligence on relationship quality. *European Journal of Personality, 25,* 155-169.

Sidanius, J. (1988). Intolerance of ambiguity, conservatism, and racism-Whose fantasy, whose reality? A reply to Ray. *Political Psychology, 9,* 309-316.

Sonnentag, S., & Frese, M. (2002). Performance concepts and performance theory. In S. Sonnentag (Ed.). *Psychological Management of Individual Performance* (pp. 3-25). UK: Wiley.

Spector, P. E., & Johnson, H. M. (2006). Improving the definition, measurement, and application of emotional intelligence. In K. R. Murphy (Ed.), *A critique of emotional intelligence* (pp. 325-344). Mahwah, NJ: Lawrence Erlbaum.

The Standish Group. (2009, April 23). *Boston, Massachusetts, April 23, 2009.* Retrieved January 20, 2010, from *http://www.standishgroup.com/newsroom/chaos_2009.php*.

Stroop, J. R. (1935). Studies of interference in serial verbal reactions. *Journal of Experimental Psychology, 18,* 643-662.

Sunindijo, R. Y., Hadikusumo, H. W., & Ogunlana, S. (2007). Emotional intelligence and leadership styles in construction project management. *Journal of Management in Engineering, 23,* 166-170.

Sutterfield, J. S., Friday-Stroud, S. S., & Shivers-Blackwell, S. L. (2006). A case study of project and stakeholder management failures: Lessons learned. *Project Management Journal, 37,* 26-35.

Talbot, D., & Billsberry, J. (2010, November). Comparing and contrasting person-environment fit and misfit, *Paper presented at the First Global e-Conference on Fit*. London, UK: Open University.

Turner, J. R., & Müller, R. (2005). The project manager's leadership style as a success factor on projects: A literature review. *Project Management Institute, 36,* 49-61.

Turner, J. R., & Müller, R. (2006). *Choosing appropriate project managers: Matching their leadership style to the type of project*. Newton Square, USA: Project Management Institute.

Turner, L. (2008). *Attachment style of children in foster care and its relationship to interpersonal cognitive complexity* (Unpublished Doctoral Dissertation).Wichita, USA: Wichita State University.

Vogel, R. M., & Feldman, D. C. (2009). Integrating the levels of person-environment fit: The roles of vocational fit and group fit. *Journal of Vocational Behavior, 75,* 68-81.

Waddock, S. (2001). Corporate citizenship enacted as operating practice. *International Journal of Value-Based Management, 14,* 237-246.

Williams, T. (2005). Assessing and moving on from the dominant project management discourse in the light of project overruns. *IEEE Transactions on Engineering Management,* 52, 497-508.

Zwikael, O. (2009). The relative importance of the PMBOK Guide's nine knowledge areas during project planning. *Project Management Journal, 40,* 94-103.

Figure 1. Complex project leader-stakeholder relationships model

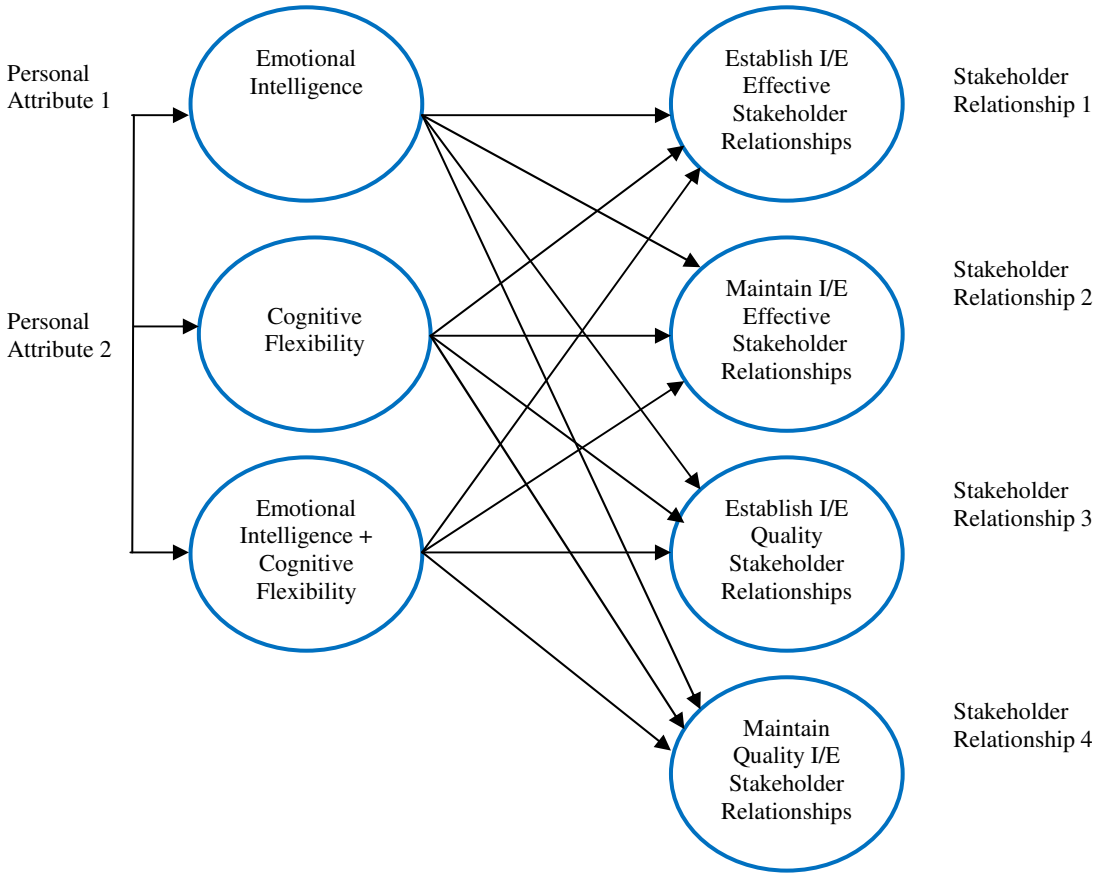

Figure 2. Abilities-demands fit model